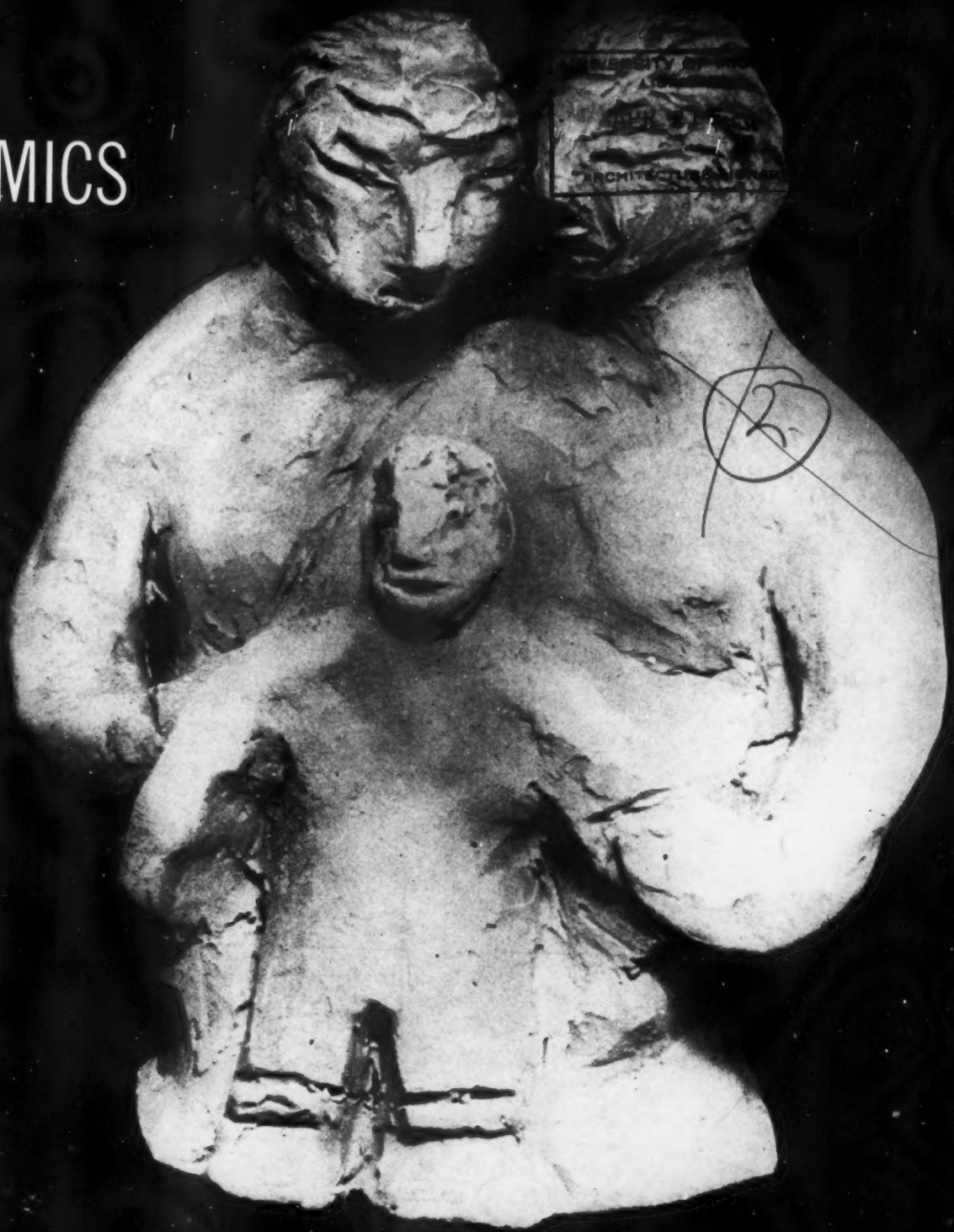


ARTS AND ACTIVITIES

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ARTS AND ACTIVITIES

CREATIVE ACTIVITIES FOR THE CLASSROOM

Volume 43, No. 4

MAY, 1958

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Sheila Stewart, Grade 10, Bloomington, Ill., High School

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Dear Reader

One of the weakest elements in today's school art programs is the lack of a long-term plan. In our efforts to give each child a wide variety of experience, perhaps we do too little planning toward arranging a *sequence* of experiences from year to year. One result is the difficulty we have in proving to the public the educational values of art.

Every school should have a specific art curriculum just as it has for other areas of learning. This means a sequential plan of art experiences for each grade level, written down and available at all times to art and classroom teachers within the school.

This has not been a popular idea in recent years, nor has it been encouraged by art educators. All kinds of arguments are put forth against a planned art curriculum. For example, we are told that it leads to a static program that teachers follow blindly week after week without considering the student's interest. Activities in any creative area, it is said, should develop and flow freely from action originating within the group itself.

A well-planned art curriculum of course is built around the interests and abilities of children at different grade levels. It should not only permit but encourage flexibility and ingenuity on the part of both teachers and students. No program should ever require a specific activity at a specific time. But the field is too vast to expect growth to occur during art activities that are selected on a hit-or-miss basis. Nevertheless this seems to be what many art educators expect at the elementary and junior high school level. No wonder elementary classroom teachers ask, "What should I do in art at the second grade level? The fourth grade level? The sixth grade?" or "How can I avoid repeating what has already been done? How can I know when an activity is too advanced?"

Many capable teachers are inclined to include at each grade level every art activity in which they feel the children can participate. This approach has definite weaknesses and dangers. When fourth-graders get excited about an art activity that occupies their fifth-grade friends, the art or classroom teacher shouldn't feel this is necessarily a green light. The fourth-graders need not participate in the activity just because it seems to interest them. On the other hand, there are art activities that overlap many grade levels. Their selection requires good judgment and

careful planning. This points up the need for a specific art curriculum.

Where there is no sequential plan of activities by grade level, schools often find it difficult to show that art is making an important contribution in the education of children. This has led to the lowering of budgets for purchasing equipment and materials. Parents smile and question the amount of time and expense devoted to "having fun with materials".

A continuing interest can be maintained in the total art program by forthright explanations to children that certain projects are kept for certain grade levels. When a child progresses from the third to the fourth grade or from the sixth to the seventh, he has the right to expect that at least some of the art activities in which he will participate will be new and different from those he had in the lower grades. These new activities stimulate his creative thinking, require the development of new skills, and demand keener thinking and more complex solutions to problems of creative expression.

When over a period of years a child is presented with the same materials and essentially the same activities, it is not surprising that he becomes bored and exclaims, "Aw, we've done all that before." Granted there are a few teachers who have the ability to make almost any activity attractive and practicable at almost any grade level. We are not speaking here of these master teachers. It is the average teacher who has this problem forced upon her most often and who, today, is asking for help and guidance.

Most high schools by reason of their departmentalized curriculum have at least some type of sequential art plan. This should succeed in a logical and consistent way the plans of the elementary and junior high schools.

An ideal solution would be for each school system to develop its own art curriculum from elementary through high school. But this is not possible unless members of the school staff happen to be qualified to do the job. Unfortunately, many small communities simply don't have these people.

Art educators are not meeting their full responsibilities until they begin to do something about this. We have a bill of goods. Let's not sell it short.

Sincerely yours,

F. Louis Hoover

Clay Goes From Grade To Grade

Most children play with clay before they go to school and easily slip into planned experiences that certainly should start in first grade and go all the rest of the way. Outline for sequential ceramics program that is presented here may be adapted to needs and conditions in your school.

By F. LOUIS HOOVER

We like to think that on his first day in school a child starts to grow accustomed to and familiar with clay and the artistic and practical responsibilities that clay entails. As he goes from grade to grade he ought to find a clay container in every classroom. A large garbage can with a tight-fitting lid admirably serves the purpose.

Children quickly learn that when clay is exposed to the air it dries out quickly. They accept the rule: whenever a child gets clay from the clay can, he is responsible for seeing that the lid is replaced—tightly.

On a nearby shelf are old newspapers and a stock of pieces of oilcloth, each about 18 inches square. A child learns to cover his desk with newspaper and work his clay on the oilcloth. The back—or cloth side—of the oil cloth is the side we use because the clay doesn't stick to it. No special tools are required, but orange sticks and inexpensive kitchen paring knives are handy to have available.

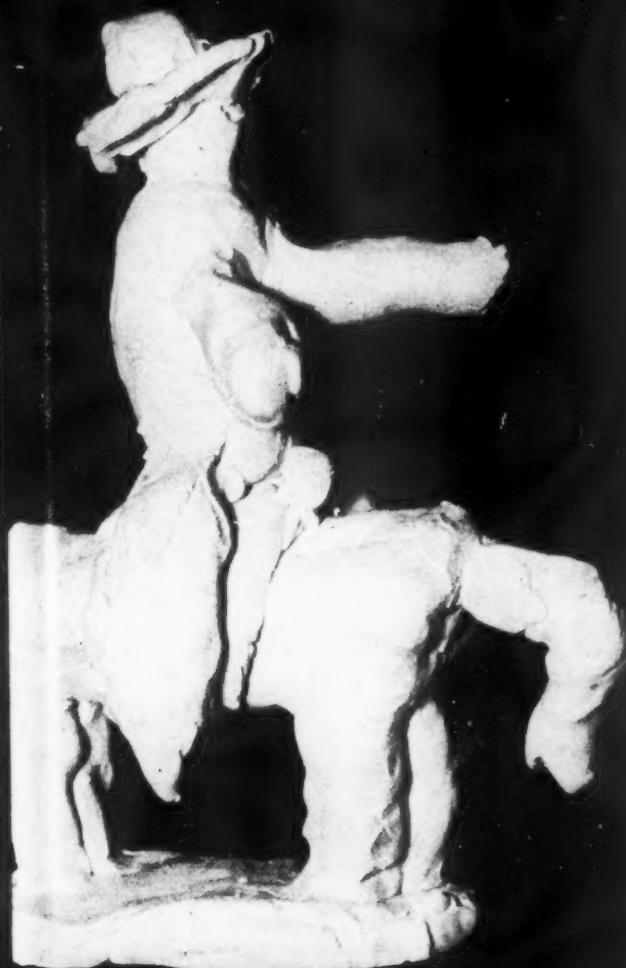
Clay comes in dry or moist form. It is simpler but a bit more expensive to buy moist clay. However, the new plastic sacks make it fairly easy to add water to the clay flour and knead the clay right in the sack until it is the right consistency. *Right consistency* means moist enough for lit-



First-grader pushes thumbs into clay ball, spreads, presses sides to make pinch bowl.



Youngsters learn that when separate parts—head, arms, legs—are attached to body, they must be solid and stocky, firmly joined and seams smoothed.



Baptism of fire leaves his horseman intact. Second-grade children should assist or at least watch when kiln is stacked or opened. What can compare with excitement of finding that careful workmanship has paid dividends?

Second-graders have better control of fingers and clay and are ready to learn use of slip for joining parts together.

the hands to work easily, but dry enough not to stick to fingers. Hundred-pound sacks are more economical than smaller quantities. Try to find nearby sources if possible to save on freight charges.

Grade 1

Children in the first grade should have many opportunities during the year to experiment with clay. But they should be taught that in order to use clay they must accept certain responsibilities. They must learn how to take care of clay, how to keep from making the classroom a royal mess and how to clean up properly—*themselves*. If children are taught these things from the beginning, clay activities become a pleasure and not a chore.

A ball of clay the size of a baseball is about the right amount. The first-grader who has had no previous experience with clay needs time to experiment, to manipulate it and see just what it's like. At first he will pound it with



Muted colors suit clay objects. Prefer red-browns, dull greens, charcoal black to raw red, yellow, blue.



Fingers were made before orangewood sticks but latter come in handy to put in facial details or to suggest texture such as feathers, fish scales. Prehistoric animal illustrates third-graders' ability to give sense of movement to model.

his fist and squeeze it through his fingers with no apparent aim. But soon he will be ready to make it into something. Clay seems to *ask* to become some *thing*.

A ball of clay can be made into a pinch bowl by the first-grader if he pushes his thumbs into the center and begins to spread the clay outward. He needs to be shown how to smooth the edges with his fingers and he should learn that

because objects of clay break easily, the walls must not be pinched too thin—not thinner than a finger.

First-graders can model simple versions of animals and people. When separate parts such as arms and legs are to be attached to the body, the parts must be pushed firmly together and the seams smoothed with a finger.

When clay objects are completed they may be set on a



All children take to rolling clay "snakes". While it isn't easy to keep diameter of coil even, third-graders rise to challenge and most of them develop fair degree of skill in making coil pottery.



Third grade is not too early to begin planned program of appreciation. Viewing reproductions of fine pottery by other peoples and civilizations broadens and deepens children's creative efforts, expands interest in clay work.



Fourth-grader learns sgraffito decoration, applying one color of clay to object of another color. With orangewood stick she incises design into and through top coat, revealing contrast underneath.



Fifth-grader starts slab construction by rolling clay between strips of wood to get uniform thickness. He cuts out slabs with knife, uses slip to join them.





After drying, slab construction is sanded smooth, ready for decoration.



Sixth-grader paints underglaze decoration directly on green ware. After work is bisque-fired, transparent glaze goes on (by brush or spray) for final firing.



Seventh-graders have had experience with both plaster and clay, now can learn to make plaster drain molds.



Plaster drain mold is first filled with slip. As dry plaster absorbs moisture from slip, wall of clay forms next to mold. Excess slip is poured off. As dry plaster continues to absorb moisture, bowl contracts, slips easily from mold.

shelf to dry. Within a few days they are ready for painting with powder or poster paint.

Grade 2

Second-graders enjoy making the same pinch pots, animals and figures, but they have better control of their fingers and hence, the clay. They may also learn to use *slip* to join parts together. Slip is clay that has been thinned with water to the consistency of cream. It may be kept in small jars ready for use at any time. Using a small brush, the child puts a coating of slip over the areas of the two parts that are to be joined together. Then they are pushed firmly together and the seams smoothed over. This makes a solid joint and lessens the chance of the parts falling off as the

object dries. However, no clay part may be fragile or thin. If a kiln for firing clay is available, objects that dry without breaking may be fired. This is called a *bisque* firing. The children should assist or at least be on hand when the work is placed in the kiln and when the kiln is opened. They should be warned, however, that often clay pieces break inside the kiln due to the fact that there may be little pockets of air inside the work. As the moisture dries out of the clay, the clay contracts in size. The fact that a pocket of air cannot contract causes the piece to break. It should be explained before firing that although we work very carefully, it is not unusual for some pieces to break. But we will be good sports and try again.

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Seventh-graders like to experiment with simple glazes. Kiln itself as well as variety of firing results intrigues them.

The bisque firing makes the clay very hard and strong. The object may now be painted, as in the first grade, with powder or poster paints. (No glazing in the kiln until next year.)

There are other things second-graders can do with clay. They can turn a glass or wooden bowl upside down and shape clay over it. If the clay seems to stick to the surface of the bowl, first grease the surface with a bit of vaseline.

They also like to spread a half-inch slab of clay in a cardboard box, draw a design with a stick, and then cover this with a half-inch coat of molding plaster.

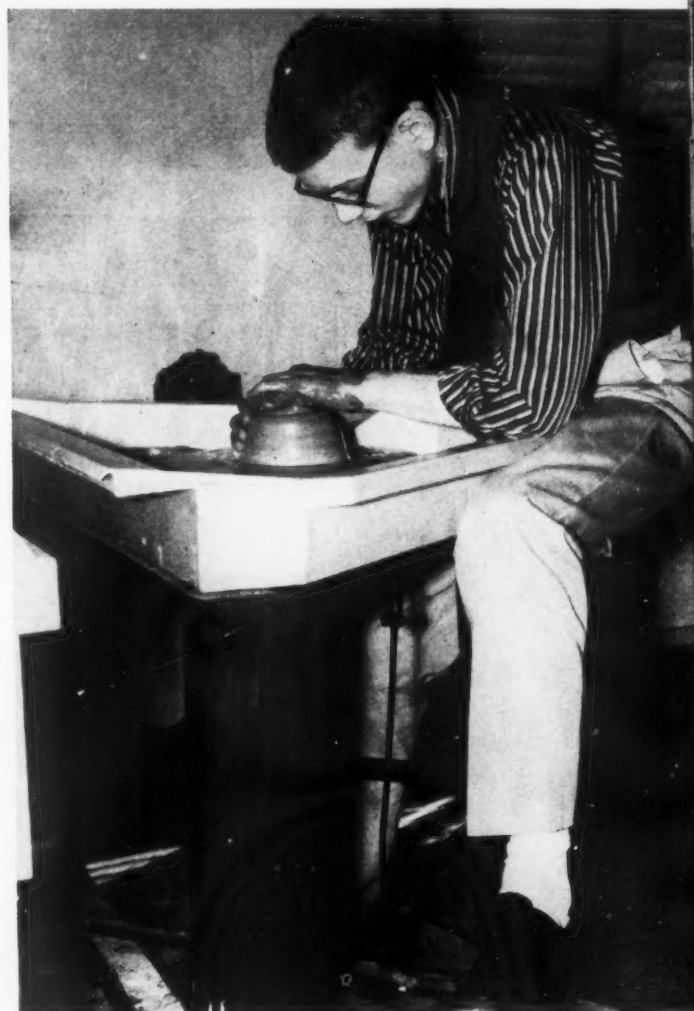
This plaster is purchased from a lumber yard for about \$2.75 a hundred pounds. To prepare the plaster, pour a pint of water into a container and gently sift the dry plaster into the water until it forms a mound at the surface. Stir gently until creamy in consistency, then pour. When the plaster is hard, the cardboard box can be torn away and the clay peeled from the plaster to reveal the finished plaque. Children may wish to scrub off surplus clay and wipe clean and white some high points, but usually the plaques look more interesting in their original "dug-up" antique coloring than covered with garish paints. If a plaque is to be used as a hanging, one end of a paper clip may be pressed

(continued on page 38)



Eighth-grader spends concentrated effort on ceramics. Many become quite accomplished, work with textural effects and develop quite large pieces with more than one figure.

Like pinnacle to be scaled, potter's wheel enriches ceramics program by its very presence in art room. It inspires the many hours of practice required to learn to throw a pot.





Fragile trunk is obvious defect in Phyllis' four-inch elephant, but when it broke off it afforded everyone lesson in material limitations. Her second try was more compact and sturdy but lacked naive charm of this one.

A VOICE THAT GROWS



In "Seal Balancing Ball" seven-year-old Debbie drops detail, correlates seal's sleekness, clay's plasticity.

Through clay, unparalleled as a medium of self-expression, children find another way to speak—at first softly and hesitantly, then with confidence.

By FRANCIS S. GRUBAR

Art Department
University of Maryland, College Park

The value of a community recreation program has perhaps not yet been fully ascertained. The varying degrees of success of such programs throughout the country indicate they fulfill some need, but this does not imply that such a program be in competition with existing educational facilities but rather as a parallel or supplemental contribution. In fact the success of the recreational program often rests on close cooperation with the school system, particularly

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Three heads are work of 9 1/2-year-old girl, left, 9-year-old boy, center, and 11-year-old boy, right. One is tempted to compare head at left with some of Daumier's famous clay caricatures. Powerful monster, center, speaks for itself. Incised movements and shape make sedate head, right, reminder of archaic age.

with regard to the use of space, janitorial facilities, materials and teachers.

During the spring of 1957 a children's clay modeling class was created as part of the general recreational program under the auspices of the Recreation Board, Prince Georges County, Maryland, with Mrs. Ellen E. Linson as Director. The class met for 12 one-hour sessions each Saturday morning in the art room of a local junior high school. Each participant paid a nominal fee on enrollment, a portion of which was used to purchase materials.

The response necessitated forming two sections of approximately 20 students each meeting at two different hours. In the preliminary planning of the course, it was believed



Figures and family theme cause some difficulty but children's inventiveness again saves day, as shown by eight-year-old Jane's massive "Figure". Pat, age six, uses "snowball" or "marshmallow" approach for "Smiling Figure", left.





Clay game called "Fun Shapes" brings out awareness of tactile and visual pleasure in form. Children are less interested in result than in execution and we surmise that absence of subject matter accounts for their lack of sustained interest.

At intervals during course, children give time to painting their models. Sometimes addition of color turns out to be disappointing but more often they are delighted.



necessary to form the sections within certain age ranges, i.e. six years to nine and 10 years to 14. In practical application, however, adjustments had to be made with the result that each section had some children from six years to 14. While children of similar ages and sex tended to sit together at first, assimilation took place after a few sessions.

Group projects, the encouragement of an informal atmosphere, making a game of certain chores such as cleaning up and the distribution of materials can aid in solidifying the sense of belonging to a group. Herein, perhaps, lies one of the advantages in a class of this kind—children learn to get along with people on a little different level than their everyday play or school groups. In addition, the experience range within the group can be somewhat wider than one of more similar years. Often the fresh, stimulating and imaginative work of the younger children influenced an older member whose work tended to become stereotyped. Or a younger child might be made aware of new ideas or methods through the examples of those who had had more training in the medium.

During the first meeting the various approaches to sculpture were demonstrated. Some small wood, stone and clay works were shown and a discussion developed to clarify basic differences in methods, i.e. the building up process or the cutting away.

(continued on page 41)

Why a Glaze is a Glaze

Make-it-yourself glaze experiment gives budding ceramists valuable clay know-how, know-why.

By **GEORGE BARFORD**

Assistant Professor of Art
Illinois State Normal University

A glaze is a very simple thing. It is nothing but a thin sheet of glass that covers and adheres to a clay object. What goes into a glaze? Materials taken from the surface of the earth such as borax, clay and sand, when ground and mixed with water, will make a glaze. How does this mixture become a glaze? Through intense heat; when a glaze is mixed and applied to a clay object, it must be fired in a kiln until the glaze materials melt and form a glassy covering.

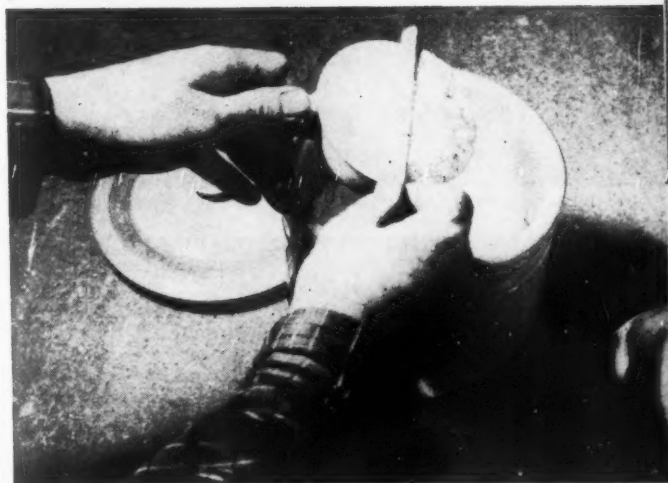
Glaze Ingredients

Each of the three main ingredients in a glaze has its own function. *Silica* is the glass-making ingredient, and it is found in nature in the form of sand. It comes to the potter for glaze-making in the form of *flint*, a fine white powder. Silica, or flint, has an extremely high melting point, however, and in order to form a glaze at a lower temperature, an ingredient called flux must be added.

Fluxes are the second ingredient of a glaze, and because there are many different kinds, each producing a characteristic type, glazes are usually classed by the type of flux used. For example, *lead* glazes are those that use white lead (in the form of a fine white powder) as a flux. *Alkaline* glazes are those that contain borax or soda as a flux. *Feldspathic* glazes are high fire glazes using feldspar as a flux.

The third ingredient of a glaze is clay that contains alumina to control its viscosity and keep it from running off the clay object during the firing. Clay such as china clay, kaolin, ball clay or ordinary pottery clay comes to the potter in the form of fine powders. Any of these may be used to supply the alumina for the third ingredient.

In addition to the raw materials for forming glazes,



2



3



(1) Student carefully measures with eight-ounce cup or tablespoon, strikes off level with straight-edge. (2) Dry glaze materials are poured into pint jar two-thirds full of water and (3) vigorous shaking of tightly-capped jar mixes contents.



4



5



6

(4) Soft-bristled 1½-inch varnish brush works well in applying glaze by brush method. Considered simplest way, it needs care to get even coat. (5) Pouring method works best for glazing inside of vases. (6) If ceramist does much glaze-pouring he substitutes for precarious two-stick support shown here a sheet of heavy screen (hardware cloth). (7) Simple speedy dipping needs large amount of glaze and demands fine relationship between glaze consistency and pot's porosity. (8) Professional, commercial and probably best method is spraying. (9) These are results: glaze applied to unfired clay, then given one firing.

GLAZE RECIPES

These glazes were brushed on dried clay bowls. For purposes of simplification (and because I was in a hurry to try them) they are applied to raw or unfired clay. Most potters prefer to use a preliminary "bisque" firing.

To measure ingredients, the eight-ounce cup was filled to overflowing and struck off level with a straight-edge. Tablespoon measurements were likewise level.

All of the glazes tested were fired to cones 06-07, Fahrenheit equivalent: 1860 degrees. This temperature is well within the range of most kilns.

GLAZE No. 1

White lead 1 cup (by weight, 3 parts)
Flint ½ cup (by weight, 1 part)
Good brushing qualities; stays on well. Results: Shiny clear transparent glaze with distinctly yellowish color on buff clay.

GLAZE No. 2

Borax 1 cup (by weight, 2 parts)
Flint ½ cup (by weight, 1 part)
Poor brushing qualities; dusts off easily before firing. Results: A shiny transparent glaze, but not so clear as Glaze No. 3.

GLAZE No. 3

Borax 1 cup (by weight, 4 parts)
China clay ¼ cup (by weight, 1 part)
Poor brushing qualities; stays on well. Results: Clear shiny transparent glaze, rather fluid.

GLAZE No. 4

White lead 1 cup (by weight, 2 parts)
Borax 2 cups (by weight, 2 parts)
Flint ¾ cup (by weight, 1 part)
Excellent brushing qualities, stays on fairly well before firing, gritty surface before firing. Results: Clear shiny transparent glaze, rather fluid. Perhaps the best of the transparent glazes tested.

GLAZE No. 5

Frit, Ferro Corp. No. 3304 1 cup (by weight, 9 parts)
China clay ¼ cup (by weight, 1 part)
Fair to good brushing qualities; chips off easily. Results: Clear shiny transparent glaze, slightly yellowish in color, non-fluid (no tendency to drip or run down) and shows good results even thinly coated.

GLAZE No. 6

Frit, Ferro Corp. No. 3191 1 cup (by weight, 9 parts)
China clay 4 tbsps. (by weight, 1 part)
Fair brushing qualities; stays on quite well. Results: Clear shiny transparent glaze, rather fluid, with marked tendency to craze (i. e., to show uniform pattern of tiny crack lines). Has a nice appearance.

GLAZE No. 7

Frit, Ferro Corp. No. 3134 1 cup (by weight, 3 parts)
Flint ½ cup (by weight, 1 part)
Tends to settle in jar, poor to fair brushing qualities; stays on well before firing. Results: Milky-white satin-finish glaze especially interesting over red clay pieces. With the addition of two level tablespoonfuls of copper carbonate this becomes a pleasing opaque turquoise. Adding the same amount of copper carbonate to Glaze No. 6 produces transparent turquoise.

GLAZE No. 8

White lead 1 cup (by weight, 1 part)
Borax 2 cups (by weight, 1 part)
Flint 1½ cups (by weight, 1 part)
This glaze is similar to No. 4 with an interesting mottled appearance alternating from milky-white to clear transparent. Since it contains more flint than No. 4, it is correspondingly less fluid during firing.

Due to slight differences in ceramic materials supplied by different companies, and also to the general nature of volume measurements, glazes made to the above formulas may not always turn out the same. In general, if a glaze is dull-surfaced, add flux. If it tends to drip, add clay. If a glaze crazes, add flint.



7



8

prepared glaze ingredients called *frits* are available from ceramic supply companies (listed below). Frits cost a little more than other raw materials but they have many advantages. For one thing, frits make a much smoother and more easily applied glaze when mixed with water than do many of the raw fluxes such as white lead and borax. Another advantage of alkaline frits is that they are insoluble in water and keep indefinitely when mixed, whereas glazes using borax or soda ash, both of which are soluble in water, must be used soon after they are mixed.

Professional potters usually balance the ingredients in a glaze by using other mineral powders such as feldspar and whiting, but for purposes of simplicity I have eliminated these.

Glaze Mixing

In preparing for this article I experimented with eight simple glaze formulas, each containing only two or three ingredients in even proportions. I have a scale handy, so I weighed the ingredients according to parts by weight. (This is customary because of the great difference in relative weights of ceramic materials. However, assuming that those who wish to try their hand at mixing their own glazes might not have access to a scale, I have reduced the glaze recipes on page 16 to volume measurements.)

The ingredients were measured and poured into a pint jar two-thirds full of water. The jar was tightly capped and shaken vigorously until the contents were well mixed. All of the usual glaze ingredients will mix well with water except the raw fluxes. White lead tends to be gritty, borax tends

(continued on page 37)







Ever since I was very young I have been interested in prehistoric beasts and fossils. It seemed amazing that once great beasts roamed the earth and disappeared and turned into fossils. As I grew older I went to the library and started to read books about dinosaurs.

In choosing our activities in Unified Arts, I decided to make a model of a dinosaur in clay because in clay I could make it more real.

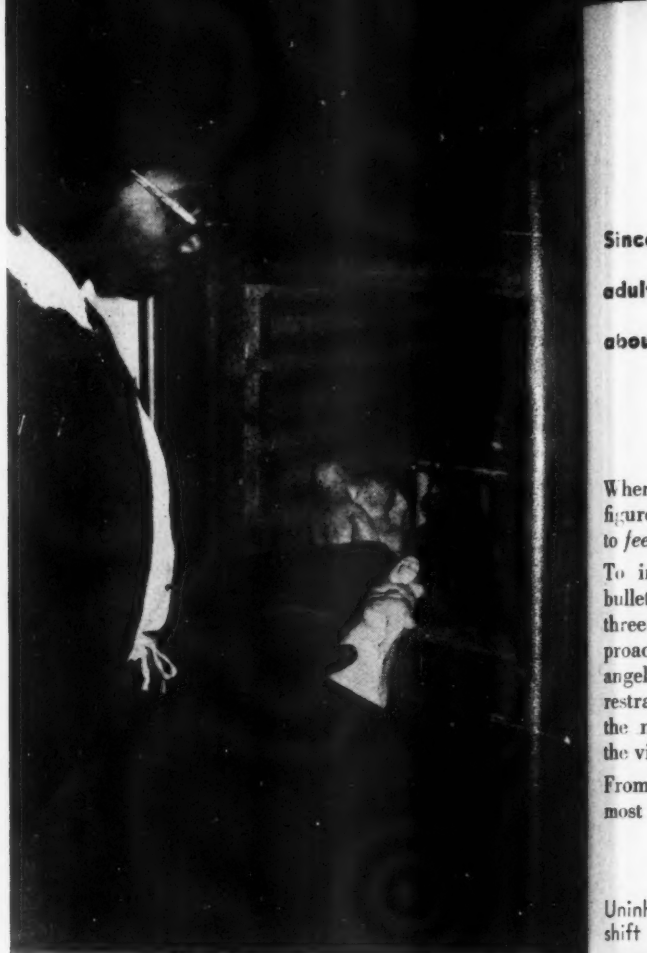
I finally picked one called *Triceratops*. I think I selected this animal because it seemed able to protect itself from the larger ones by its cleverness. The *Triceratops* was about 30 feet long and his head was nearly one-third the length of his body. He belongs to the group known as *Ceratopsia*.



Kenneth Helwig

Kenneth Helwig
Age 12, Grade 7
Whittier School
Oak Park, Ill.

Twosome carved down from single piece of clay convincingly and delicately expresses "Maternal Tenderness". Right, when kiln is opened students eagerly inspect their fired sculpture, here bisque-fired pieces of red and white clay.



Let's Shift From Figures To Feeling

By **ELIZABETH STEIN**

Instructor of Art
Bloomington High School
Bloomington, Illinois

Since modeling human figure staggers proficient adult artists, it's no wonder youngsters are timid about it. Shift of emphasis helps to set them free.

When students are timid about trying to model human figures for the first time, a shift of emphasis from *figures* to *feelings* may help.

To introduce a sculpture project this year I planned a bulletin board that displayed examples of many types of three-dimensional art. They illustrated the variety of approaches used by different artists. We talked about Michelangelo's monumental serenity, Maldarelli's classical and restrained beauty, the abstract approach of Henry Moore, the naive charm of the Hudson Bay Eskimo artists and the violently rebellious emotions in Barlach's wood carvings.

From observation and discussion we learned that sculptors most frequently turn to the human form for their inspira-

Uninhibited "Young Lovers" supports author's contention that emphasis shift may release adolescents. They need to bring feelings to light.



Affection emanates from tiny clasped figures titled "Reunion". Note simplicity of modeling.

This piece—stern mother, primitive feeling and all—couldn't be anything but "Madonna".



tion. We noticed they exaggerated proportion as well as feelings. Certain gentle, rhythmic lines could suggest one emotion while a more severe, angular treatment might create an entirely different mood. The common denominator in all the most interesting pieces was a quality of three-dimensional movement that led the eye continuously around the surface of the sculpture.

Our first experiment was to take a fairly large lump of clay (we used Amaco white or red clay) and try to give it this quality of movement.

The need for solidity and simplicity in any clay work was stressed. We learned that clay may either be built up or cut down so long as the final product is strong. It is also important for the clay to be just the right consistency. A student is sure to be discouraged if his sculpture collapses because the clay is too moist or if cracks form because it is too dry. In order to maintain the proper moisture content, we covered our sculptures at night with damp terry toweling and then enclosed them in plastic bags.

Student models group of wrestlers on plaster of Paris bat that has been soaked in water. As well as supporting his sculpture, it helps keep clay moist. On Amaco aluminum pottery wheel, piece turns easily as he works around it.



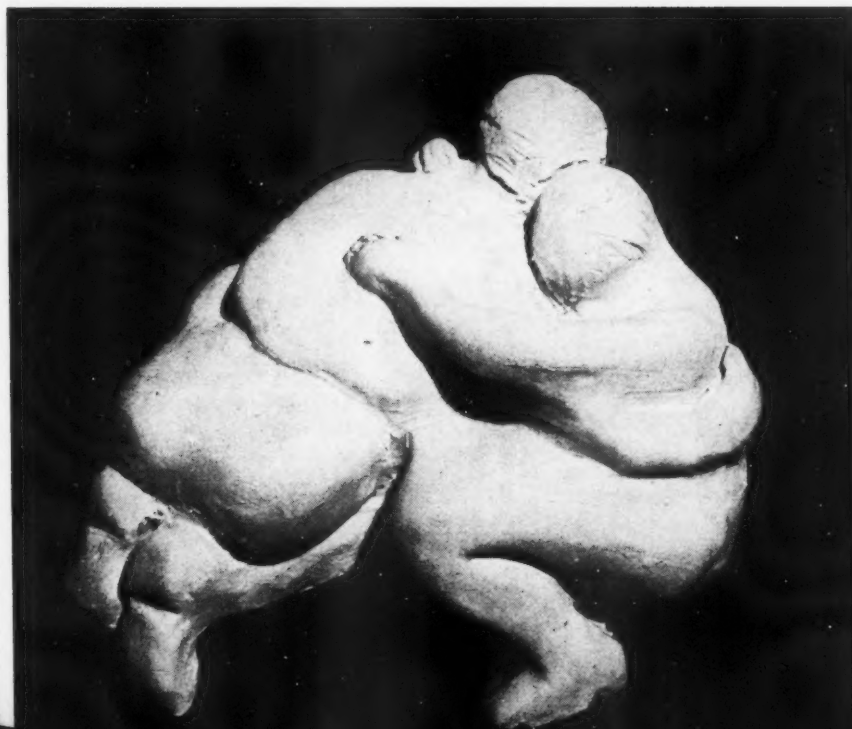
The real challenge to me lay in motivating the student to bring his feelings to light and to translate these feelings into expressive clay figures. This presented a good opportunity to point out that art is not only concerned with "pretty" subjects or "happy" feelings, but that it seeks to capture a wide variety of human experiences. The emotions of love, hate, joy, sorrow, envy and fear are familiar to all of us in varying degrees. Whichever feeling is strongest will be expressed with greatest conviction by the student.

Children are often burdened with serious family problems. Teen-agers are sometimes quite confused about their real feelings. Still others are delightfully straightforward and uninhibited. In any case they derive a good deal of satisfaction from the clay figures they create. The work may be crude (for refinement of structure is not emphasized) and it may be enormously revealing but its merit lies in its deep sincerity.

Who is not shocked by savagery of intent, the cruelty and despair of expression in "Savage Stabbing"?



With master strokes, young artist carves frustration and despair into solitary figure. He cut it down from single piece, names it "Depression".



Encircling arms give piece its title — "Protection" — contribute to quality of three-dimensional movement that leads eye continuously around sculpture's surface.



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LOST AND PROUD and WATERBIRDS—Lenore Tawney

ART APPRECIATION SERIES

FOR YOUR BULLETIN BOARD

Lenore Tawney is a weaver who has dared to break with tradition. Admired by some and criticized by others, her controversial tapestries are a revolt against older methods of weaving. It has even been suggested that she should be considered a painter instead of a weaver. In several instances her work has been rejected from exhibitions because it did not conform to jurors' standards for judging weaving.

A loose fragile quality characterizes much of Miss Tawney's work. It may have areas of solid weaving and other areas of free warp. In *Lost and Proud* (above) she used a needle to strengthen and dramatize the lines in the woven design. Sometimes several threads of related color and varying weight have been woven as one. *Waterbirds* (facing page) is a large, solid-woven tapestry using a wide range of colors against a watery background of blues and greys. Often Miss Tawney uses many kinds of threads in a single work, combining linen, cotton, wool, nylon and silk in one tapestry. In one case she even used feathers.

Lenore Tawney's education in the arts included studying sculpture with Archipenko, drawing at the Institute of Design, weaving with Marli Ehrmann and tapestry with

Martta Taipale. Although she considers Chicago her home, she is a great traveler. This past year has been spent in New York. Other years have found her in Paris or the Middle East. Wherever she goes, she collects examples of rugs, jewelry, sculpture and paintings.

Within the past three years she has completed 36 tapestries. Many of these have caught the attention and admiration of architects who find her work well-suited to interiors of contemporary buildings. Two were recently purchased by Marshall Field's for their north shore shopping center. She has exhibited at the Museum of Contemporary Crafts in New York City, the Palmer House Gallery in Chicago, the International Textile Exhibition in Greensboro, N. C., the Ohio State University Exhibit of Religious Art and with the Midwest-Designer Craftsmen of Chicago.

Lost and Proud and *Waterbirds*
are reproduced through the
courtesy of the artist



FIRE YOUR POTS IN ONE HOUR!

By **JOSEPH DiBONA**

Oakland, Calif., Recreation Department
Photographs by Christine Gardner

Two parts clay to one part grog produces clay that is porous when fired. Porosity helps it withstand sudden, uneven shock of bonfire heat.



After arriving at formula, we add a third water by weight and let clay stand until it reaches right consistency for working.



If pots are not thoroughly dry, water within them forms steam during firing and makes them explode. To aid drying, small fire is kept alive beneath them.

After half-hour of pre-heating, fire is built up with remaining fuel, blazes to furious pitch. Fire roars for about 20 minutes, then begins to die down.



Many of the children in our neighborhood had made things from clay, but they had never had the experience of firing their own pieces. This important aspect of the ceramic process had been completely ignored, and we determined to do something about it.

The fun and drama of firing pots the way the Indians did seemed too good a project to miss, and yet we were stumped. Certain questions naturally come to mind: Can children fire their own pieces successfully? Can they do it in the space of an hour and take them home? Is the experience to be gained worth the effort? On all counts the answer turned out to be an emphatic yes.

If you want to do some of these fascinating experiments, have the children keep careful records of everything they do and don't be afraid to call in a local ceramist, a brick factory manager or any one else with a firsthand knowledge of clay.

Our project started with some 10-year-olds, some clay

pieces, and a story about the way Indians fired their pots right on the ground. Despite stern warnings about the dangers of breakage, the children trusted their pieces to an open bonfire—and not a piece survived. But instead of being discouraged we started experimenting. We added different materials to the dry clay as we had read the Indians did. Each back yard experiment was a heart-thumping thrill as the youngsters hauled their own wood and vied for the privilege of being one of the stokers. As the heat rose in the bonfire each wondered whether his piece would be the one to survive.

We experimented with clay, sand and grog, which is simply fired clay that has been ground up. Our clay was a cheap clay called Dosch in California but available almost anywhere. After trying various combinations of these materials for several weeks, we arrived at a proportion of two parts clay to one part grog. This produced a porous clay when fired, but it is exactly this quality that enables it to withstand bonfire heat. *(continued on page 41)*



By accident we find that water can be poured on red-hot pots without damaging them, due to their extreme porosity. Left, we carefully stack dried pots on oven grate before building fire shown on opposite page.

PAPER AND CARDBOARD

Cutting or tearing bright-colored paper, arranging the pieces and pasting them down are processes particularly well suited to the kindergarten room. Colored 9x12-inch construction paper is adequate for some activities but larger sheets are needed so often that it's just as well to invest in 12x18-inch stock. Teachers find it's helpful to have on hand one or two packages of 18x24-inch size in assorted colors to use as backgrounds on the bulletin board or to back a child's drawing or painting when it is exhibited.

Blunt-nosed scissors and small jars of library paste are all the children need besides paper. If sheets of colored paper are spread out on a table at the front of the room, children can choose the colors they want to work with at their own tables. A shirt- or suit-box may hold the larger scraps and children should be encouraged to use paper from this box whenever possible.

Preliminary drawing is not advisable because of children's tendency to draw small details that won't lend themselves to cutting or tearing out. This seems especially true if children are allowed to use pencils. In fact, there is no occasion for the use of pencils in art activities at the kindergarten level.

To tear out shapes, children need to learn how to control the torn edge by moving their fingers inch by inch as they tear. They must realize they can't control the direction of a long tear.

A 12x18-inch sheet provides a good background for most designs or pictures. Larger sheets suit more elaborate projects such as when several children work together.

At the upper grade levels the students generally cut out all the shapes first and then plan an arrangement of them on the background paper. Kindergartners often prefer to cut and paste each shape as it is produced. As in painting, the teacher may use questions to encourage a consideration of color choices, darks and lights, etc.

"How many have chosen a background paper that is light in color? Will light or dark colors show up best against your paper? Name some colors you might choose."

Again as in painting, space-filling problems have to be considered. Children are too often satisfied to paste an animal, house or person in the middle of the paper and then consider their work finished. The teacher must stimulate and encourage the child to add interest to his work through the addition of related ideas. It's a good plan to discuss this when first introducing the activity.

Neither pencils nor crayons are used for preliminary drawing in cut and torn paper work. Scissors, jar of paste and paper are all five-year-olds need to make paper pictures.

"Mary, do you have an idea for your paper picture today?"

"Yes, I'm going to show Twinkie, my cat."

"A fine idea. What will your cat be doing?"

"He's drinking milk out of his bowl."

"Where is the bowl?"

"On the kitchen floor beside the stove."

"Then what else besides Twinkie can you put in your picture to make it more interesting?"

"Well, I can show Twinkie, his bowl, and the stove and the kitchen table, and maybe a chair—"

"And maybe you?"

"Yes, me pouring the milk."





Five-year-olds take trip to farm, then cut out trees, barns and animals. Arranging on bulletin board is group project.

"Those are all wonderful ideas. Mary is sure to have a beautiful picture today because she has thought of many different things to put in her picture."

Children readily see they can add small decorative elements to large areas such as slender strips of paper for stripes and bits of squares or circles for polka dots. Such additions enrich the design and add interest to the total composition.

What standards, if any, do we set up regarding neatness in cutting and pasting activities in the kindergarten? Some children have little difficulty in learning how to paste. Others apparently can't open the jar without getting it all over themselves as well as their work.

There is no question that originality in developing ideas tops our list in evaluating art activities in the kindergarten just as at upper grade levels. On the other hand, having ideas is not the whole story in art, or in life. We must develop skills necessary to carry out our ideas effectively. Therefore, teachers needn't fear mentioning neatness in art work so long as they make it clear that neatness is only *one* characteristic in effective art expression. Everyone has seen displays of kindergarten art products that are neat, identical and sterile. We much prefer messy Marty who is full of interesting and original ideas to prim Pete who is neat but never has an idea of his own. It is Marty who one day may make an important contribution to society because of his ability to think creatively. Keep him busy



Poster paint finishes off kindergartner's construction that uses paper box, cardboard tube, inspired touch of excelsior.

with praise and encouragement. Gradually help him to become aware of the importance of carrying out his work carefully. Remember that nagging is apt to convince him that art activities are not for him.

For three-dimensional constructions, a variety of papers and lightweight cardboards should be available. These can be collected primarily by the teacher, but the children will be happy to bring things from home if they are encouraged to do so and if they are really excited about using them for a new project. The following list includes some basic items: newspaper, shirt cardboards, corrugated cardboard, gift-wrap, tin foil, milk cartons, small boxes (cosmetics, etc.), cardboard tubes (tissue, paper towel, etc.), oatmeal boxes and other round containers, paper plates and straws.

Fast-drying cement, paper fasteners and a stapling machine are helpful when children are working on paper and cardboard constructions. They ought to solve as many of their joining problems as they can, but a teacher with a stapler handy can prevent many frustrations by making things stay together or stand up.

Even if it were desirable it would be impossible for the kindergarten teacher continually to think of enough new ideas for children to make of paper and cardboard. The remarkable and exciting fact is that she need not. Five-year-olds amaze us with their inventiveness and ingenuity. All they need is motivation and praise—and a helping hand occasionally in solving a specific problem. •



We must not slight representational drawing—basic language of art. Nothing replaces its discipline: observation, analysis, interpretation, expression.

By CHARLES R. ROSE

Arts and Crafts, Jefferson School
Elyria, Ohio

Do You Still Teach Drawing?



The most common dilemma of art students in junior and senior high school is the inability to draw realistically. Experimentation with techniques, exploration of materials, and free emotional expression often lead to blind alleys—doodling or frustration instead of creative release—simply because the student cannot draw realistically. He wants to draw horses that look like horses, not tall dogs. Nothing replaces representational drawing and its disciplines of observation, analysis, interpretation and expression.

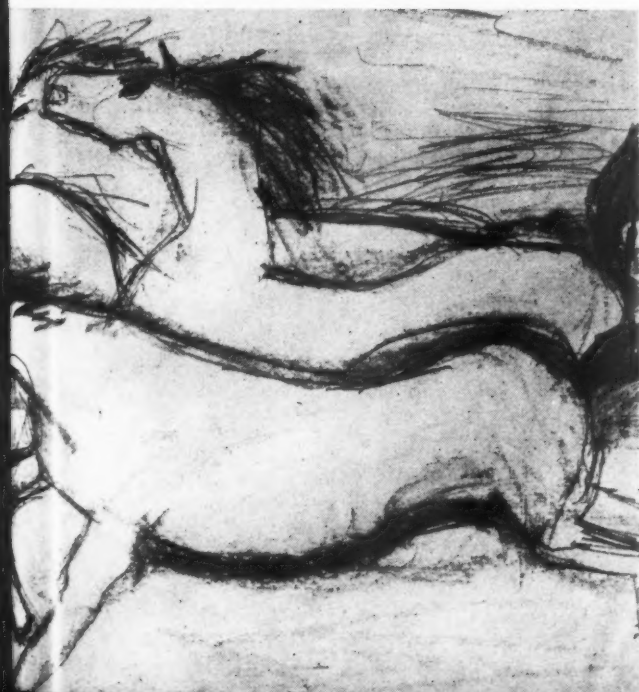
From this viewpoint our first step is to help the student learn to *see*—not just to recognize objects by name, but to see in the sense of “shape wholeness” and “parts relationships”. After a few class periods spent discovering how to draw by knowing what to look for, most students respond amazingly well in their abilities to represent things accurately. A lot of practice must follow to acquire real skill, and intelligence plus emotion must accompany this knowledge in order to go beyond mere “likeness” into the realm of creative art—but we are dealing with beginners now, not mature artists.

At Jefferson Junior High School our most successful efforts have resulted from the procedure outlined here, used with variations according to class responsiveness. First, fifteen minutes of class time was allotted in which to draw a cow. The wails and complaints were loud, but soon everybody had on paper a semblance of a cow-type animal. These were signed and dated. Then the students were asked to bring in on the following day another drawing of a cow, this time done from a picture.

The remainder of our class time (we have two successive 40-minute periods for art) was spent in discussing the “how” of drawing. We examined the particulars



Unique exercise in drawing brings forth such comments as "Well! I couldn't do this right side up!" These 15- to 20-minute sketches capture rhythmic structure, design inherent in all works of art. Sketch below shows what work looks like as students draw from projected slide of Chavez' "Gallopers".



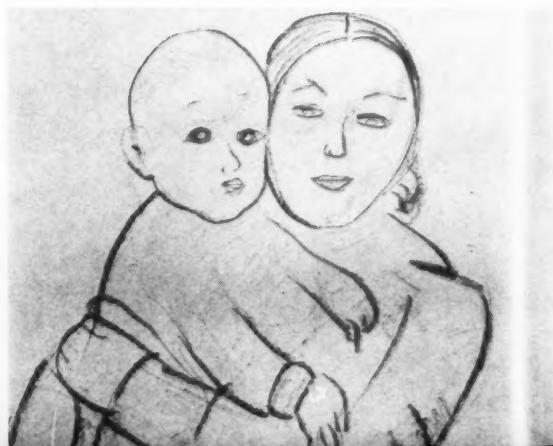


of a cow, noted how it differs from other animals, how it stood, how it ate, how it moved. On a fresh sheet of paper we then blocked in the main form with sketchy lines, getting a rough shape like the first blocking-in of soap sculpture or whittling. At this point we then checked and corrected the proportion of parts. Everybody was quick to recognize wrong kinds of tail, or ears or legs, and by analytically checking his own, each student was able to improve on his first sketch. Still simplified, the drawing was then finished with such details as the students could remember. These surface qualities and minor notes were added, it was pointed out, to a properly proportioned basic drawing.

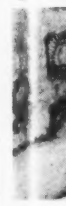
The students followed this procedure for their assignment and the next day brought examples not only of recognizable cows in various positions, but of Jersey, Hereford, and Holstein cows. By reference to a picture to strengthen their visual memory (a real cow would have been better) they were convinced that through learning to see and following a logical series of steps, they could learn to draw. Compared with their first attempts, their third drawings seemed the work of different people.

The next week a different device was used to get more complex drawings. A slide projector was used to throw on the screen a picture that was out of focus (and upside-down, though this was not apparent until much later). By using the sides and corners of both the screen and paper as comparable reference points, the students established the first fuzzy lines and dark spots. Marks on the paper (continued on page 35)

Out-of-focus projector throws Melchers' "Mother and Child" on screen and students establish first fuzzy lines and dark spots. The fact that it's upside-down is not apparent until transparency is gradually brought in focus and drawings sharpen.



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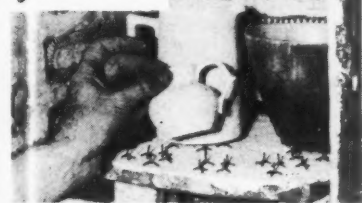
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SHOP TALK

HOLD-UP PAYS OFF

A clever solution to kiln-stacking problems is a brand-new little gimmick called **SPEEDY SPURS**. Made of a special wire that withstands stoneware temperatures, **SPEEDY SPURS** are tiny welded tripods with vertical projecting



supports. You need only one size of spur and all you do is scatter them on the kiln shelf and stack your clay pieces. Storage-space problems? Over 500 **SPEEDY SPURS** fit in a teacup!

SPEEDY SPURS are re-usable indefinitely. They can't break and they are the most economical supports you can buy. For 50 cents you can get a trial package of one dozen, by writing to Cole Ceramic Laboratories, Dept. AA, Gay-Way, Sharon, Conn.

THIS MONTH'S SPECIAL!

Cole Ceramic Laboratories also put out a exotic type of glaze. Called **MING-GLO**, the glaze develops the soft velvet sheen characteristic of fine old oriental pottery. They are exceptionally easy to apply and always give excellent results. Fired to cone 06 or higher, **MING-GLO** glazes are notable for their subtle stoneware low-luster effect.

Arts and Activities' readers may test these claims in a special package Cole Laboratories is offering. For a limited time you can get a package of six beautiful colors in ready-to-use four-ounce jars for \$3.00. (Regular price, \$4.50.) Write right away to Cole Ceramic Laboratories, Dept. AA, Gay-Way, Sharon, Conn., and be sure to mention *Arts and Activities*.

ARTISTS' PAL

Developed strictly for artists' use is a new transfer paper called **SARAL** that has an interesting ceramists' application. Designs traced onto pottery with **SARAL** disappear completely in the firing, whether the piece is green, bisque-fired or glazed.

SARAL has a thousand other uses and it's waxless and greaseless. It produces clean sharp lines that won't resist ink or wash, won't bleed or crawl and yet are easily erased. For the classroom, art supply stores sell a \$1.00 package containing one 8½x12-inch sheet of each color.

Free samples of each color have been offered to *Arts and Activities'* readers and with these you can thoroughly test its application to various uses—particularly ceramics—in your classroom. Write S. B. Albertis, Dept. AA, 5 Tudor City Pl., New York 17, N. Y., or circle No. 140 on your Reader Service Card.

THE NEED TO SPRAY

MUTSCHLER BROTHERS COMPANY of Nappanee, Ind., now manufacture a spray booth that is ideal for use in crafts classes, partly because of its compact size. A counter-top model, it measures 24 inches wide, 24 inches deep and 47¼ tall. **MUTSCHLER** makes a variety of storage base cabinets that combine with the booth to make a complete double-duty unit.

The enamel-finished booth is made of eight-gauge sheet-steel panels with rigid rolled edges and welded, mitered corners. Its self-contained motor and exhaust fan are easily removed for cleaning. Other important features are its vapor-proof lamp and removable Fibreglas filter.

You'd be surprised how inexpensively your school can obtain modern equipment that makes your work easier and your students' work better. For complete specifications on this spray booth and a free catalog of school furniture and special-purpose equipment, write **MUTSCHLER BROTHERS COMPANY**, Dept. AA, Nappanee, Ind., or circle No. 136 on your Reader Service Card.

You may want to compare **MUTSCHLER's** booth with a somewhat smaller one manufactured by O. HOMMEL CO. of Pittsburgh.



The size of this booth is 24x24x28 inches and the height of the stand is 32 inches. Write O. HOMMEL CO., Box 475, Pittsburgh, Pa., for prices and additional information—mentioning *Arts and Activities!*—or circle No. 137 on your Reader Service Card. (continued on page 35)

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PROFESSIONALLY SPEAKING

■ The Art Department of the Richmond, Va., Public Schools has completed production of a television art series called "Art Around Us" over a local TV commercial channel. That the programs have been highly successful is evidenced by public reaction and the lasting values in the area of art for principals, teachers, students, and parents.

The series consisted of a half-hour program each Monday morning for seven weeks, especially planned and executed for fifth-grade students by **Helen C. Rose**, Supervisor of Art Education in Richmond, and elementary art consultants **Eugenia Logan**, **Anne Orgain**, **Olive Harris**, **Leavorn Stovall**, **Marilyn Bevilacqua** and **Bernice Brown**. For the sake of continuity two consultants, **Djenane Lemmon** and **Beverly Shannon** conducted the programs. Each was a combination of "enrichment" and direct teaching. The titles of some of the programs were: "Your House has Grandparents", "Art Around Us", "Christmas in Many Lands", "Let's Make a Print", "Let's Advertise" and "Clay in Your Hands".

Fifth-grade students in all schools had the opportunity to see these programs through TV sets in the school auditorium or in their classrooms. Sets for the most part were owned by the schools but in some cases they were loaned by parents or teachers.

Preceding each program, detailed mimeographed material went to each fifth-grade teacher giving a summary and suggested activities before and after the program. Evaluation sheets were returned after the program and these proved very helpful in making improvements in the programs as the series progressed. Careful planning, imaginative sensitive presentation of visual materials, and lengthy rehearsals before the cameras paid off in the effectiveness with which approximately 3600 fifth-graders and 120 teachers were touched in the area of art through the medium of television.

■ The Art Education Department of the School of Education of New York University has announced the availability of a \$2500 teaching fellowship for the 1958-59 academic year. In addition to the stipend, the recipient may take nine credit points per term in the department of tuition-free graduate course work (value \$540 per year), and will teach two two-point courses per term in the department. Teaching assignments will be made on the basis of the recipient's qualifications and area of doctoral study. It is possible at New York University to produce a significant creative project in lieu of a written doctoral thesis through the newly-established creative doctorate program. Further information regarding this teaching fellowship may be obtained from **Dr. Howard Conant**, Chairman, Art Education Department, School of Education, New York University.

By ALEX L. PICKENS

Instructor in Art and Art Education
University of Michigan, Ann Arbor

■ The Rhode Island School of Design has established four scholarships and two fellowships in its graduate Art Education program, it was announced by **President John R. Frazier**. Leading to the Master of Science degree, the program integrates study and research in both art education and professional design. The scholarships will be awarded to qualified applicants according to need in amounts ranging up to full tuition. The fellowships cover a period of two years, and in return for half-time teaching, carry with them remission of tuition and fees as well as \$1700 a year. Application for admission to the program and information regarding the fellowships may be obtained from the Director of Admissions, Rhode Island School of Design, 25 College St., Providence, R. I.

■ For the second time, the Smithsonian Institution will circulate 100 prize-winning works from the Metropolitan Opera Guild's annual "Art in Opera" contest. This year the opera selected by the Guild was Bizet's "Carmen", and all students in grades seven through 12 of member schools were invited to submit proposed stage costume designs, covers for the Guild's magazine, *Opera News*, and creative works based on their advanced study of the opera. Schools in Greater New York, Westchester, Long Island, New Jersey and Connecticut are represented. As a climax to the contest thousands of children from these schools are invited to attend the Guild's annual student matinee performances at the Metropolitan Opera House and to witness the vast complexities of scenery changes as they take place with the curtain raised. Prizes are to be awarded at this time and the most outstanding tempera, water color, crayon and chalk drawings will be premiered at the IBM Galleries in New York City.

A schedule of available dates for this exhibition may be obtained by writing to **Miss Jo Ann Sukel**, Traveling Exhibition Service, Smithsonian Institution, Washington 25, D. C.

■ Outstanding speakers at the recent Eastern Arts Association convention in Washington, D. C. included **Representative Frank Thompson Jr.**, of New Jersey, **Dr. T. M. Stinnett**, Executive Secretary, National Commission on Teacher Education and Professional Standards of the National Education Association, **Edward Stansbury**, Chief, Exhibit Division, U. S. Information Agency, and **Oliver Caldwell**, Assistant Commissioner of Education, United States Office of Education.

■ **Harold McWhinnie**, originator of "Print Exhibitions", 1170 E. 54th St., Chicago, Illinois, has sent a catalog of current exhibitions available to high schools, some of them concerning new, experimental processes, with accompanying demonstrations. Write Mr. McWhinnie for further information on available exhibits. •

Shop Talk

(continued from page 33)

UP FROM THE CELLAR

No stranger to the nation's schools, L&L kilns are now appearing in a new get-up. As the manufacturer puts it, now that cer-

amics has moved upstairs from the cellar, all 32 models of L & L kilns are being made in a new "gunmetal tan" finish, a neutral that harmonizes with every modern decor.

After numerous tests for its durability, as well as suitability for classroom and home decoration, L&L decided to adopt the new

color so that the ceramic hobbyist could work in a modern kitchen, his upstairs den or rumpus room instead of confining his hobby to the garage, a shed or built-on "studio".

For an up-to-date kiln catalog, write L&L MANUFACTURING COMPANY, Dept. AA, 804 Mulberry St., Upland, Chester, Pa., or circle No. 138 on your Reader Service Card.

"THE UNIVERSITY"

The new KLOPFENSTEIN potter's wheel is priced low enough that even hard-pressed school budgets ought to consider it. Selling for under \$150.00, it is a full professional-size, quality-constructed, all-metal treadle wheel.

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facture it specifically with a view to filling school needs.

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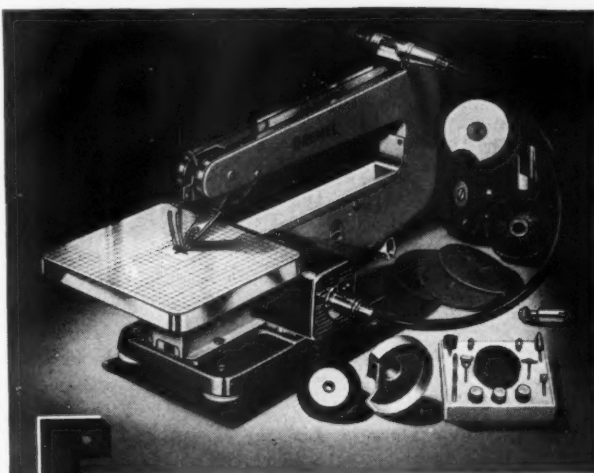
Teach Drawing?

(continued from page 32)

corresponded in size and position to those on the screen. Step-by-step the slide was brought into focus, and step-by-step the drawing developed. There was no mental block to start with due to subject, so nobody said "I can't". As before, drawing was understood to be learning to see, and everybody was able to make these first lines long or short, straight or curved, in one corner or the other.

When the picture was finally in sharp focus and right side up, some had already discovered what they were drawing, but without exception each student who really tried was pleased, even elated, with his result. This is not to say each picture was perfectly drawn and beautifully expressive. Many needed more careful attention to the problem of space relationships and line direction, but this was a foundation for continuing improvement. One lesson will not make the student a facile, expressive draftsman, but it will release his hesitations and enable him to gain appreciable results.

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BOOKS OF INTEREST AND AUDIO VISUAL GUIDE

ENAMELING ON METAL by Oppi Untracht, Greenberg, Publisher, 201 E. 57th St., New York, N. Y., 1957, \$7.50.

Sheer technical facility has made Oppi Untracht one of America's best-known authorities on enameling. He has sought to survey the field of enameling in his new book, *Enameling on Metal*. Copiously illustrated and varied in its consideration of processes, his book is the best of its kind to appear in some time. With all its outlining of technical processes there are no pedestrian how-to-do-it instructions. Readers, enamelists and novices alike will be stimulated by its contents. Untracht wisely has selected the work of America's best enamelists to illustrate a wide variety of approaches to the process.

It is fortunate that the author has chosen to use the simplest of tools. So clearly are these described and illustrated that little doubt is left as to their potential use. The enamels illustrated are much too embellished for this reviewer's taste, but there is admittedly much experimental, inventive work in evidence. The author's clocks, for example, are too decorative to tell time; isolated details on them are interesting in themselves. *Plique a Jour* work by Ronald Pearson and enameled mosaics by Virginia Dudley are among the better examples included. Historic practices of this technique are used by the author to point up possibilities of the media.

Mr. Untracht is a teacher in the New York City School System and at the Brooklyn Museum Art School. Travel in Europe, South America and India has given him opportunity to study the craft in many countries. He believes enameling has many possibilities as yet unexplored. It is probably for this reason that the book is written with enthusiasm for the more creative, exploratory aspects of enameling.

• • •

CREATIVE ART IN THE SECONDARY SCHOOL, an art guide developed by the Denver, Colorado Public Schools. May be purchased on request. 1957.

Art guides and materials on the teaching of art produced by the Denver, Colorado, public schools have become well known among art educators throughout the country. The newest member of this family of art guides in this system is the *Creative Art in the Secondary School*. While the contents are similar to other recently published art guides at the secondary level, there are some features that are particularly noteworthy either for their concepts or for their relation

By **IVAN E. JOHNSON**

Head, Department of Arts Education
Florida State University
Tallahassee, Fla.

to problems in teaching at this level. The section on growth factors and their relation to approach and method is concisely written and pertinent. Another section on expectancies in learning is equally commendable. The "point of view of the guide" is a philosophical frame of reference as the Denver teachers see it. The elements of design, the importance of art in the home, school and community and a broad group of media and techniques constitute the remainder of the guide.

Few guides in recent years have had so lavish a use of color and detail in layout. The guide is richly illustrated with photographs of students in action and the things they have created. An emphasis on the uniqueness of the individual is in evidence in parts of the art program shown.

A section on "Practicing What We Believe" relates the content to the on-going learning in the curriculum. Suggestions for teacher pre-planning, teacher-pupil planning and evaluation are well stated.

It is assumed that *Creative Art in the Secondary School* is written and planned for the specific situations found in the Denver Schools. One wonders, when the Denver teachers evaluate their guide, will they find a more sequential or related grouping of content? The most stimulating and rewarding part of the preparation of curriculum materials is the fact that they grow with use. The new guide is probably conceived as a challenge for further exploration by each teacher.

• • •

NEW KEY TO WEAVING by Mary E. Black, The Bruce Publishing Company, 400 N. Broadway, Milwaukee, Wis., 1957, \$12.00.

A standard work for many years for weavers has been Mary Black's *Key to Weaving*. She has now revised and added considerably to her original text to produce *New Key to Weaving*. The new book is a marked improvement and will undoubtedly be as avidly studied as the earlier one.

The value in the book lies in its sequential organization of information in an articulate manner. There is a nice balance of technical data and creative process in weaving. Few possible warping drafts are left unmentioned.

New gadgets to speed loom warping and off-beat weft, such as lily pad stems and bear grass are not discussed, possibly because Mrs. Black feels that the art in weaving lies in the use of fibers and materials that give a character of fabric in the great tradition.

Glaze
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Glaze

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to be lumpy and soda ash is even lumpier. Professional potters usually grind their glazes either with or without water before using them, but this requires a ball mill (which is a glaze-grinding machine not found in every kitchen) or for laborious grinding by hand with mortar and pestle. By shaking the glaze jars vigorously, and by stirring the contents with a wooden stick, you can mix the glazes well enough to be applied by one method or another.

None of the glazes used in my experiment were strained, although running them through an 80- or 100-mesh screen is the usual procedure. Trying to keep the whole process as simple as possible necessitated some short cuts. Actually, making a strainer is a very simple and inexpensive process. Large hardware stores carry bronze strainer cloth in different meshes, and a 4x4-inch piece of 80-mesh screen is big enough. Buy a can of peaches, open one end with a wall-type can opener, eat the peaches, rinse out the can and cut out the other end too. Wrap the strainer cloth over one end of the can and bind it on tightly next to the rim with copper or galvanized wire. Trim off the excess strainer cloth and your strainer is finished.

Glaze Consistency

This gets a section all to itself because assuming a correct formula and proper firing, the consistency of the glaze will make all the difference in its application and consequently in the final result. Glaze should be *creamy* in consistency. This is about as close as one can come in words to describing what its consistency should be. It should not be watery, or it will run right off the piece being glazed; it should not be too thick, or you will have difficulty applying it by any method. If a glaze is too watery, let it stand for awhile and pour off the layer of water that forms at the top of the jar. If too thick, it is easily cured by adding water. Not too much! A little at a time, and keep testing it.

For brushing on, glaze may be thicker than for pouring or dipping. For spraying it can be the thinnest, but again, caution: not watery. Most frit-glazed objects may be fairly easily

handled before firing; that is, the glaze will not powder or dust off. Raw lead and raw borax glazes tend to powder off when handled before firing. This can be remedied by adding a couple of teaspoonfuls of mucilage or wave-set to the mixed glaze before applying, as both of these solutions contain a gum that acts as a binder and keeps the glaze from powdering.

Glaze Application

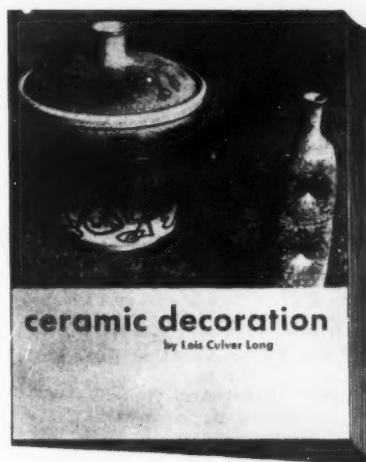
There are four usual ways of applying glazes: brushing, pouring, dipping and spraying. All have their good points and bad points. Brushing is the simplest, as I have mentioned before, and not much glaze needs to be mixed for brush application. But care must be taken to insure an even coating. A good way is to brush with even, slightly overlapping strokes in one direction, give it a second coat of strokes at a right angle to the first, and finish with a third coat in the original direction.

Another method of applying glaze is to pour it. This method is especially useful for glazing the inside of vases, bottles or any narrow-mouthed clay shapes. Glaze for pouring should be fairly liquid so that it will pour readily. To glaze the inside of a vase, pour it half full, pick it up immediately, turn it slightly on its side and roll it in a full turn as you bring it to an upside-down position. Have a bowl ready to receive the excess glaze from the mouth of the vase. Don't get the glaze on too thickly.

To pour the outside of the vase, lay two sticks parallel and close together across the rim of a mixing bowl. Balance the vase upside down on the two sticks. Pour the glaze evenly down the sides of the vase, moving the stream in a slow circular motion around the vase.

The third method of applying glazes is dipping. While this seems at first glance to be one of the simplest and easiest ways of glazing, it must be done carefully. Indeed, dipping a clay pot in a pan of glaze is the quickest way to glaze it, but there must be a fine relationship between the consistency of the glaze and the porosity of the pot. Unfired clay or porous bisque ware needs a glaze that's on the thin side, and for dense bisque ware the glaze should be thicker. Dipping has the advantage of speed and simplicity, the disadvantages of necessitating a fairly

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The American Art Clay Company sponsored this book as an educational service. Lois Culver Long, the author, majored in ceramics at the University of Wisconsin, has a masters degree from the University of Southern Illinois, and for 5 years has been a member of the Amaco ceramic staff.

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large amount of glaze and the need to scrape the excess glaze from the bottom of the pieces before firing. Bare spots left by the fingertips must be touched up with glaze on a brush before firing.

Calling for special equipment but assuring the most even coat is the spray method of glaze application. A simple glaze-spraying tool is an insecticide spray gun. For convenience it should be quart-size and for ease of use it should be of the continuous spray type: cost, about \$2.50.

A word of caution: Glaze-spraying should be done in a well ventilated place, preferably with a nearby window open. Glazes containing white lead are particularly toxic, and should not be inhaled as spray particles or allowed to enter the body through cuts on the hands or in any other way. After applying white lead glazes by any method, the hands should be thoroughly washed.

Glazing by spraying is the professional and commercial way of application, and gives, I think, the best results in the long run. Spray guns can be frustrating tools when they get clogged up or refuse to function for some other reason, but if they are thoroughly cleared by spraying water through them after each session, and taken apart and thoroughly cleaned occasionally, they are worth the effort and occasional frustration.

A final word on glaze application: pay particular attention to the top rim of a bowl or other piece in applying glaze. Since the glaze tends to run down during firing, put some extra glaze on the rim. Don't brush it on, just sort of plop it on with frequent dipping of the brush.

Glaze should be applied thinly if at all to the bottom of the piece so as not to leave big stilt marks.

Sources

Glaze-making ingredients as well as glazes in limitless variety are available from such firms as these:

American Art Clay Company, 4717 W. 16th St., Indianapolis 24, Ind.

Re-Ward Ceramic Color Mfrs., 1987 Firestone Blvd., Los Angeles 1, Calif.

House of Ceramics, 2481 Matthews Ave., Memphis 8, Tenn.

The O. Hommel Co., Box 475, Pittsburgh 30, Pa.

George Fetzer Ceramic Supplies, 1205 17th Ave., Columbus 11, Ohio.

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Clay in Grades

(continued from page 11)

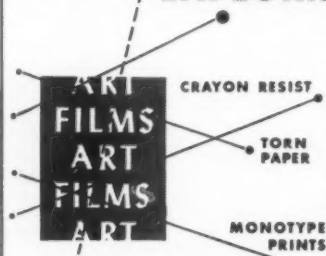
into the center top of the plaster before it sets. The extended loop provides a convenient hanger.

Grade 3

Third-graders are ready to give more attention to details in their clay modeling. We encourage them to twist a neck or body to give it an *aliveness*. They are ready for this new development and like the challenge of giving a sense of movement to animals and figures.

It seems almost instinctive for children to roll out snakes of clay. In the third grade we can develop this skill. We roll coils of clay about one-half inch in diameter for use in building up bowls and vases. First we pat or roll out a slab of clay one-half inch thick. Using a jar top, we lightly press it onto the clay for a circular impression and cut out the shape with a paring knife. This forms the base of our bowl. Then,

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rolling out coils of clay, we wind them around and around the edge of the base to build up the sides of the bowl. With every third row we stop to weld the coils together with a diagonal stroke of the finger. This makes them into a solid wall of clay. To flare the wall outward, we lean the coils out a bit; to bring the wall inward, we lean the coils toward the center. Third-graders are capable of learning this coil technique and they achieve some rather fine shapes when they take into account the possibilities of moving the walls inward and outward.

Third-graders are ready for single-fire glazing and there are a number of sources for purchasing this type of glaze. A single-fire glaze is brushed or sprayed directly on the bowl before it has been fired and a single firing in the kiln takes the place of the bisque and the glaze firing.

Grade 4

Children in the fourth grade are becoming aware of peoples in other lands and civilizations. They can begin to appreciate their contributions to the arts. Watch for examples of pottery and clay modeling by other peoples in such magazines as *National Geographic* and *Life*. The children may also search the library for examples.

Fourth-graders often develop figure and animal compositions involving more than one object—perhaps two people, two animals or a figure and a pet. They should be encouraged to make these very simple and compact with no small extending parts to break off easily. They may exaggerate the size of legs and arms and perhaps include a base in the total design.

The *sgraffito* method of decorating pottery can be introduced at this level. This calls for the use of two colors of clay. After an object has been completed, it can be painted with a contrasting clay slip, such as red slip over gray or white clay. When this has dried, the point of an orange stick may be used to draw a line design into and through the top coating to reveal the color beneath. After a bisque firing, these can be shellacked or possibly covered with a transparent glaze and fired a second time.

Grade 5

The slab method of constructing pot-

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tery may be introduced in the fifth grade. Two strips of wood are used as guides to achieve a uniform thickness of clay when it is rolled out with a wooden rolling pin. Each student makes his own original pattern of paper or lightweight cardboard. He places it on the clay and cuts out the shapes with a paring knife. He joins the slab pieces with slip and sets his piece aside to dry. When dry, the object can be smoothed with fine-grained sand paper and decorated, possibly by the sgraffito method. A single-fire transparent glaze may be brushed or sprayed on before firing.

Grade 6

Sixth-grade boys and girls can learn to make one-piece press molds of plaster. This process is suitable for making jewelry or tiles. For example, a pendant may be designed from a thin slab of clay and a line decoration incised on its surface. (Be sure there are no undercuts.) Placing the pendant in a small box, face side up, plaster is poured over the surface for a thickness of about a half-inch. When the plaster is hard, the box is

torn away and the clay peeled from the plaster. Little hollows in the plaster that are still filled with clay need to be probed out and the whole wiped clean with a damp cloth. After the plaster has completely dried, damp clay is pressed into the plaster mold and subsequently removed as it begins to dry and pull away from the mold. This process makes it possible to make any number of pendants of the same design. When dry, the work is lightly sanded and decorated for firing and glazing.

The use of underglaze may be introduced at the sixth-grade level. Underglazes are painted directly on the green ware (clay that has not been fired). They may be purchased in sets that look very much like boxes of water colors. We have used Amaco underglazes from the American Art Clay Company in Indianapolis and found them satisfactory. After a design in underglaze has been painted on, the clay object is given a bisque firing in the kiln and then a transparent glaze is brushed on for a final glaze firing.

Grade 7

Seventh-graders have had sufficient experience in using plaster to learn how to make simple drain molds for casting bowls and vases. The student either makes a finished bowl of clay or he may carve the outside shape of a bowl from a solid block of leather-hard clay. He must be sure there are no undercuts so that the plaster mold will pull away from the original clay without breaking.

Choose—or make—a box somewhat larger than your bowl. Set the bowl upside down in the box and cover it with liquid plaster. When the plaster has hardened and cools (the plaster will get quite warm to the touch during the hardening process) tear the box from the plaster, remove the clay, clean the inside surface of the mold and set it aside for several days to dry out. When it is thoroughly dry, the mold is filled with prepared slip. The dry plaster absorbs moisture from the slip and the slip begins to adhere to the walls of the mold. The slightly different texture of the drying slip next to the plaster warns

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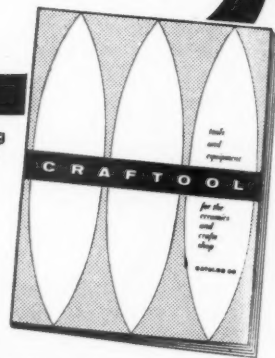
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the observer when he should pour out the excess slip so that the walls of the cast bowl will be about $\frac{3}{8}$ -inch thick. As the plaster continues to absorb the moisture from the clay, the clay shrinks and pulls away from the plaster mold. When leather-hard, the clay bowl slips easily from the mold and you're ready to cast another bowl. When the new bowl is dry it is ready for sanding, decorating, glazing and firing.

Grade 8

In the eighth grade students are willing to spend more time and concentrated effort in developing ceramic (clay) sculpture. Sometimes these become quite large works involving more than a single figure. To achieve a new textural effect, grog may be added to the clay.

Perhaps the biggest thrill of all comes to the youngster permitted to experiment with a potter's wheel. To learn to "throw" a clay pot on a wheel is no small achievement and requires many hours of practice. A real potter's wheel in the art room can do much to increase interest in the art program.

For more complete information regarding pottery techniques, John B. Kenny's "The Complete Book of Pottery Making" is highly recommended. •

Fire Pots

(continued from page 27)

When several pieces made of clay of certain proportions survived firing, we mixed a larger batch and added about one-third water by weight. After a week the clay had thoroughly absorbed the water and reached a good working consistency. The clay was then worked into simple vessels and not-so-simple animals and left to dry in the open air for a week and near a heater for another week. This is important because most of the pots that explode during firing have water in them that turns to steam and forces the pot apart. A coarse, porous clay largely eliminates cause of breakage but not entirely.

The day we fired, an old oven grate was laid on bricks stacked at each corner. The children carefully placed their pieces on top and prepared for their work assignment. Some were in charge of fuel, others had to clear an

area of all combustible material, and two recorders were assigned the important task of noting how long the firing took and what was done at each stage. We found the local fire department particularly helpful in finding a safe spot for us to build our fire.

After stacking the pots, we started a small fire under the grate so that the pieces might be dried out even more in case any moisture remained in them. For perhaps a half-hour we kept this small fire going with only a dozen or so sticks. When the half-hour had elapsed we added more wood to make a blazing fire. This is the crucial point of the firing, and despite our precautions two of the 20 pots blew up. It is important to remember that this type of firing is a primitive one and that the Indians likewise had to accept some disappointments.

As the fire became hotter fuel was added to the sides and top of the grate until the clay pieces and bricks were all covered with blazing wood. In another 20 minutes all the fuel had been used and the children stood back to watch the fire die down. When it had died down slightly one of the pots was pulled from the fire with a long stick. It was an exciting moment to see the red-hot pot come off the rack all in one piece.

At this point an unusual accident occurred that proved to be a wonderful surprise. The red-hot glowing pot that rolled off fell into a puddle of cold water. Instead of shattering, it merely sizzled and let off a cloud of steam. More cold water was poured on to cool it further. Finally, growing more bold, we doused the fire completely with a garden hose. Again, the porosity enabled our clay to survive this rugged treatment. After about five minutes of this, the children could pick up the pots with their bare hands and examine them enthusiastically. Just one hour had elapsed from the start to the finish of the firing. •

Voice Grows

(continued from page 14)

"Lecturing" was minimized. Demonstrations were made with clay showing the qualities of plasticity, fluidity and ease of modeling. It was found that demonstration pieces of any type

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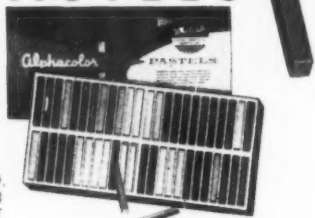
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were better destroyed or put away after use to avoid the tendency of some children to imitate.

The remaining sessions were organized with a specific theme or problem in mind for each meeting. These were geared to experiences that the child might have taken part in, such as visits to a farm or zoo, pets, play activities, holidays or experiences of a more fanciful nature in which the child might freely exercise his imagination, such as making composite animals, life in outer space, underwater fantasy, or "fun shapes".

At the beginning of the hour, the instructor set the idea in motion by telling a little story about the particular theme. This portion of the program generated no little enthusiasm each week, perhaps because a surprise element was built into it. The children would not know the theme until the meeting and there was always some speculation toward the end of each session as to what would take place the following week. It was believed that if they were told beforehand, some might "prepare" by copying animals from picture books or other sources, or their interest in the problem might diminish in the course of a week. And, of course, the surprise element would be missing.

As the story unfolded, they were gradually drawn into the discussion and encouraged to contribute a personal experience. Once the direction was established, the enthusiasm of the children took over. If the zoo theme were the subject for the day, certain animals were described, such as the elephant. What makes the elephant different from a giraffe? Response would emphasize the bulky shape, flapping ears, trunk, pad-like feet and wrinkled skin.

Discipline problems were anticipated but never materialized. The normal, infectious energy of growing boys and girls was felt and certain activities had to be suppressed at the outset—such as the natural urge to test the aerodynamic possibilities of clay in flight.

It would be presumptuous to attempt to make any profound conclusions from a course of such brief duration. This was as much an experiment for the instructor as for the children. If it succeeded in any small way to open some channels of creativity it served its purpose.



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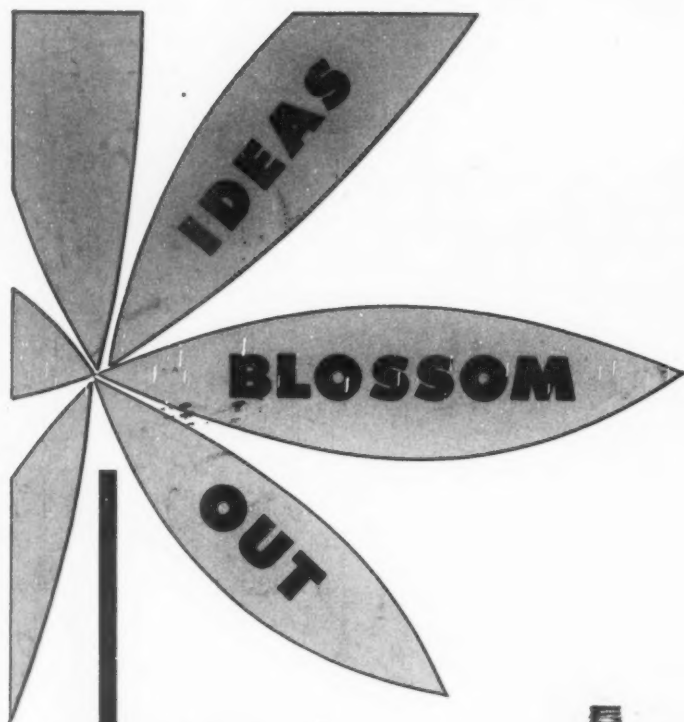
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